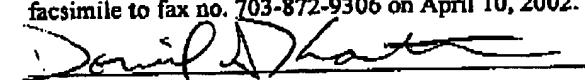


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Daniel S. Kasten

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|-----------------|--------------|-------------------|---------------------|
| Application of: | Rice et al. | Group No.: | 1642 |
| Serial No.: | 09/576,989 | Atty. Docket No.: | 56029-4356 |
| Filed: | May 23, 2000 | | |
| For: | HCV Variants | Examiner: | Brumback, Brenda G. |

Commissioner of Patents and Trademarks
Washington, DC 20231

AMENDMENT AND RESPONSE

This paper is submitted in response to the Office Action dated January 10, 2002.

IN THE CLAIMS:

The claims of the application have been amended herein as indicated in the following marked up versions of the claims:

1. (Three times Amended) A polynucleotide comprising a non-naturally occurring HCV sequence that is capable of productive replication in a host cell, or is capable of being transcribed into a non-naturally occurring HCV sequence that is capable of productive replication in a host cell, wherein the HCV sequence comprises from 5' to 3' on the positive-sense nucleic acid, a functional 5' non-translated region (5' NTR); one or more protein coding regions, including at least one polyprotein coding region that is capable of replicating HCV RNA; and a functional HCV 3' non-translated region (3' NTR), wherein said polynucleotide further comprises an adaptive mutation that confers improved cell culture characteristics to said polynucleotide.

